

## “FIGURE IT OUT” – Unit 5 – 6<sup>th</sup> Grade English / Language Arts

| Grade:  | Course:  | Unit:  |
|---|--|--|
| <p><b>Common Core/Essential Standard #:</b></p> <p>Please refer to section “suggested instructional tasks” for all standards addresses in unit.</p>   | <p><b>Description: “Figure It Out”</b></p> <p>In this four-week unit, students have the opportunity read classic and contemporary mysteries, make sense of nonsense poems, and solve riddles and math problems.</p> <p>Students are asked to articulate their basis for predictions, describe why and when they revise those predictions, and share the strategies they use to solve a variety of problems.</p> <p>Divergent approaches to similar problems are encouraged, followed by analysis of why students chose a particular strategy to try.</p> <p>Students delve deeply into examining language and vocabulary specific to mysteries and problem solving.</p> <p>They examine how understanding of these words is key to uncovering connections made in texts.</p> | <p><b>Instructional Days:</b></p> <p>4 weeks – approx. 20 classes</p>  |
| <p><b>Learning Targets:</b></p> <ul style="list-style-type: none"> <li>• I can read and solve a variety of mysteries, nonsense poems, riddles, and math problems.</li> <li>• I can compare and contrast mystery stories by a variety of authors.</li> <li>• I can distinguish between explicit clues and inferences drawn from the text.</li> <li>• I can articulate strategies used when solving problems (i.e., highlighting key information) and when figuring out mysteries (i.e., refining predictions as each chapter is read).</li> <li>• I can write a variety of responses to literature and informational text.</li> <li>• I can recite poetry for classmates.</li> <li>• I can compare and contrast the experience of reading a mystery to listening to or viewing an audio, video, or live version.</li> <li>• I can, and will, use new vocabulary associated with mysteries in written responses.</li> <li>• I can, and will, participate in group discussions.</li> </ul> |  | <p><b>Recommended Resources:</b></p> <p><b>Literary Texts:</b><br/> The Westing Game (Ellen Raskin)<br/> G is for Googol: A Math Alphabet Book (Schwartz and Moss)<br/> Math Curse (Jon Scieszka)<br/> Toothpaste Millionaire ( Jean Merrill)</p> <p><b>Classic and Contemporary Mysteries:</b><br/> The Mysterious Adventures of Sherlock Holmes (Conan Doyle)<br/> Three Act Tragedy (Agatha Christie)<br/> 39 Clue Series (Rick Riordan)<br/> The Mysterious Benedict Society (Stewart and Ellis)<br/> The Name of this Book is Secret ( Secret Series)(Pseudonymous Bosch)<br/> Chasing Vermeer ( Blue Baillet and Brett Helquist)</p> <p><b>Poetry:</b><br/> Jabberwocky (Lewis Carrol)<br/> Poetry for Young People – Edgar Allan Poe, Edward Lear<br/> Math Talk: Mathematical Ideas in Poems for Two Voices (Theoni Pappas)</p> <p><b>Informational Texts:</b><br/> The Number Devil: A Mathematical Adventure (Hans Magnus Enzenburger)<br/> Go Figure! A Totally Cool Book About Numbers (Johnny</p> |

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|   | <p>Ball)<br/> The \$1.00 Word Riddle Book (Marilyn Burns and Martha Weston)<br/> Math-terpieces: The Art of Problem Solving (Greg Tang and Harry Biggs)<br/> Grapes of Math: Mind Stretching Math Riddles (Greg Tang)</p> <p><b>Art, Music and Media:</b><br/> Balthus – The Mountain (1936 – 1937)<br/> “           The Street (1933 – 1935)<br/> “           The Living Room (1942)<br/> “           Solitaire (1943)</p> <p>Chris Van Allsburg, illustrations from The Mysteries of Harris Burdick (1984) – writing/listening and speaking resource</p> <p><b>AUDIO RESOURCES:</b><br/> The New Adventures of Sherlock Holmes (Anthony Boucher audiobook CD)<br/> The Essential Agatha Christie Stories: Agatha Christie’s Best Short Sleuths Crack Twenty Two Famous Cases (BBC Audiobooks America)</p> |                  |                            |  |                     |  |                 |                |                            |                |                |  |                    |               |                |               |                |  |  |
| <p><b>Essential Terminology:</b></p> <table border="0"> <tr> <td><b>ALIBI</b></td><td><b>INFERENCE</b></td></tr> <tr> <td><b>DEDUCTIVE REASONING</b></td><td></td></tr> <tr> <td><b>INVESTIGATOR</b></td><td></td></tr> <tr> <td><b>EVIDENCE</b></td><td><b>MYSTERY</b></td></tr> <tr> <td><b>INDUCTIVE REASONING</b></td><td><b>PROBLEM</b></td></tr> <tr> <td><b>SOLVING</b></td><td></td></tr> <tr> <td><b>RED HERRING</b></td><td><b>SLEUTH</b></td></tr> <tr> <td><b>SUSPECT</b></td><td><b>VICTIM</b></td></tr> <tr> <td><b>WITNESS</b></td><td></td></tr> </table> | <b>ALIBI</b>  | <b>INFERENCE</b> | <b>DEDUCTIVE REASONING</b> |  | <b>INVESTIGATOR</b> |  | <b>EVIDENCE</b> | <b>MYSTERY</b> | <b>INDUCTIVE REASONING</b> | <b>PROBLEM</b> | <b>SOLVING</b> |  | <b>RED HERRING</b> | <b>SLEUTH</b> | <b>SUSPECT</b> | <b>VICTIM</b> | <b>WITNESS</b> |  | <p><b>Online (only links specific to this standard):</b></p> <ul style="list-style-type: none"> <li>•Puzz.com 1001 Best Puzzles (Puzz.Com)</li> <li>•Ingredients of a Mystery (Scholastic) (RL.6.3)</li> <li>•Chasing Vermeer: Picture the Process!, Do You See What I See?, and Patterns and Pentominoes (Scholastic) (SL.6.6)</li> <li>•History’s Mysteries (Education World) (W.6.1)</li> <li>•Becoming History Detectives Using Shakespeare’s Secret (ReadWriteThink) (RL.6.9)</li> <li>•Celebrate Blues Legend Robert Johnson’s Birthday (ReadWriteThink) (L.6.3)</li> <li>•Edward Stratemeyer, Creator of Book Series such as Nancy Drew, was Born on This Day in 1862 (ReadWriteThink) (RL.6.3)</li> <li>•Mystery Cube (ReadWriteThink) (RL.6.2)</li> <li>•Everyone Loves a Mystery: A Genre Study (ReadWriteThink) (RL.6.4)</li> </ul> |
| <b>ALIBI</b>  | <b>INFERENCE</b>  |                  |                            |  |                     |  |                 |                |                            |                |                |  |                    |               |                |               |                |  |  |
| <b>DEDUCTIVE REASONING</b>  |   |                  |                            |  |                     |  |                 |                |                            |                |                |  |                    |               |                |               |                |  |  |
| <b>INVESTIGATOR</b>   |   |                  |                            |  |                     |  |                 |                |                            |                |                |  |                    |               |                |               |                |  |  |
| <b>EVIDENCE</b>   | <b>MYSTERY</b>  |                  |                            |  |                     |  |                 |                |                            |                |                |  |                    |               |                |               |                |  |  |
| <b>INDUCTIVE REASONING</b>  | <b>PROBLEM</b>  |                  |                            |  |                     |  |                 |                |                            |                |                |  |                    |               |                |               |                |  |  |
| <b>SOLVING</b>  |   |                  |                            |  |                     |  |                 |                |                            |                |                |  |                    |               |                |               |                |  |  |
| <b>RED HERRING</b>  | <b>SLEUTH</b>   |                  |                            |  |                     |  |                 |                |                            |                |                |  |                    |               |                |               |                |  |  |
| <b>SUSPECT</b>  | <b>VICTIM</b>   |                  |                            |  |                     |  |                 |                |                            |                |                |  |                    |               |                |               |                |  |  |
| <b>WITNESS</b>  |   |                  |                            |  |                     |  |                 |                |                            |                |                |  |                    |               |                |               |                |  |  |
| <p><b>Essential Readings:</b></p> <p><b>See resource list above.</b></p>  |   |                  |                            |  |                     |  |                 |                |                            |                |                |  |                    |               |                |               |                |  |  |
| <p><b>Essential Question:</b></p> <p>How do strategies for solving math problems compare with strategies for solving mysteries, riddles and general</p>   |   |                  |                            |  |                     |  |                 |                |                            |                |                |  |                    |               |                |               |                |  |  |

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problem solving?

How does hearing your classmates articulate their thinking increase your understanding of problem solving?

### **Activating Strategy – Introduction mini lesson:**

**Class Discussion and visual example – Show class a copy of “Jabberwocky” on ELMO/projector – read a few lines and discuss:** How do you make sense of nonsense poems such as “Jabberwocky” by Lewis Carroll? How do you figure out what words mean when you don’t recognize them, or if they don’t exist? How are clues provided in text structure, meaning, where do you look or HOW do you look into a text to determine meaning?

**INTRODUCTION TO “Figure It Out”** – express purpose of unit and activating lesson – have students journal about a time they needed to “activate” knowledge and skills in order to solve a riddle, problem or mystery. What skills did they use that they didn’t realize they had? How did they work through the problem – did they ask questions, look for clues? Have students share their work – on chart paper, make a list of skills used to find solutions.

### **Suggested Instructional Tasks:**

#### **Media, Reading Literature, Argument Writing**

How does listening to a mystery such as *The Mysterious Adventures of Sherlock Holmes* as an audiobook compare to reading the book? Which do you prefer? Why? Write an argument to explain your preference. Be sure to include at least three reasons for your preference and examples for each reason. Take the online poll on your classroom blog for this topic. If the class responses are equally divided, your teacher may ask you to upload your response on the classroom blog to get feedback from your classmates. (RL.6.7, W.6.1, L.6.1)

#### **Argument Writing, Language Usage, Language Mechanics**

Using the Just the Facts graphic organizer, write an argument to respond to this question: Which character played the most pivotal role in the mystery read? Why? Write a well-developed paper that includes an engaging opening statement of your position, at least three clear reasons, and relevant evidence from the mystery read. Cite at least two significant passages, and explain how and why those passages contribute to the development of the plot. Edit your writing for varied sentence patterns and consistency in style and tone. You may upload your essay to the classroom blog. (W.6.1, W.6.4, L.6.1, L.6.2a,b, L.6.3a,b)

#### **Vocabulary**

Keep an index card file of words studied while reading mysteries, riddles, and math problems (*e.g., alibi, evidence, sleuth, suspect, victim, witness, red herring, investigator, hunch, motive, etc.*). Keeping the words on index cards will help you when we sort words by prefix, suffix, root words, meaning, spelling feature, and so on. (*Note: This will be an ongoing activity all year long.*) (L.6.4a,b,c)

#### **Narrative Writing, Language Usage**

After reading and discussing mysteries in class, try to write your own mystery that incorporates the new vocabulary words learned in this unit. Talk your ideas through with a partner, but don’t give away the ending! See how long you can keep your reader engaged without giving away the resolution. Your well-developed mystery should hook the reader with a mysterious opening sentence and have a logical sequence of events that is made clear in the concluding section. Edit your writing for varied sentence patterns and consistency in style and tone (see Standards for more details) before publishing your mystery on a class web page. (W.6.3, W.6.4, W.6.5, W.6.6, L.6.1, L.6.2a,b, L.6.3a,b)

#### **Language Mechanics**

As a class, continue adding to the Mechanics/Grammar bulletin board started in Unit One. Remember—once skills are taught in a mini-lesson and listed on the bulletin board, you are expected to edit your work for these elements before publication. (L.6.1, L.6.2, L.6.3)

#### **Reading Informational Text, Informative Writing**

Ask your math teacher if you can solve the “Painted Cube Problem” in math class, or solve some math problems from *The \$1.00 Word Riddle Book* by Marilyn Burns or found online. Write in your journal about the thought process used to solve these problems, or create a screenshot of your work online, and use this experience to add to your graphic organizer. (RI.6.4, RI.6.5, W.6.4)

#### **Reading Literature, Language Usage**

The clues provided to the heirs in *The Westing Game* are mostly words from the song “America the Beautiful” taken

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out of order. When rearranged, they notice the missing parts spell out the name of an heir—but this is actually a red herring. Select your own song, change the order of the lyrics, delete some words or letters, and see if your classmates can solve *your* mystery. (RL.6.5, W.6.2) *Optional extension:* Remix your own song using music recording software.

### **Reading Literature, Opinion Writing**

Select a pivotal passage or scene from the mystery you are reading. How does this scene fit into the overall structure of the text? How does it contribute to your understanding of the plot? Write your thoughts down in your journal.

Reevaluate your claim at the end of the book. Do you still think that passage was critical to the solution? Why or why not? Talk with a partner to justify your answer, and cite specific details from the text. (RL.6.5, W.6.2, SL.6.4)

### **Reading Literature, Language Usage**

Read the opening pages from two books, such as *Math Curse* by Jon Scieszka and a book from the *39 Clues* series by Rick Riordan, by different authors in this unit. Describe both of authors' styles. Are they formal or informal? How does each author's style compare to yours? Choose a piece of your own writing and compare it with a classmate's. Describe how your styles are similar and different. Read your work aloud, and listen for shifts in style. Working with a partner, revise your work as necessary so the style is consistent. (L.6.3b)

### **Reading Poetry, Language Usage, Speaking and Listening**

How do you make sense of nonsense poems such as "Jabberwocky" by Lewis Carroll? How do you figure out what words mean when they don't really exist? How are clues provided in the text structure, repetition, or content of the poem? Your teacher may ask you to write your ideas down in your journal and share them with a partner before class discussion. (RL.6.4, SL.6.1) *Optional follow-up activity:* Write your own nonsense poem and see if classmates can make sense of it.

### **Informative Writing, Reading Literature, Language Usage**

In this unit, you have read mystery books, made sense of nonsense poems, and solved riddles and math problems. Write an informative/explanatory essay in response to the essential question: How do strategies for solving math problems compare with strategies for solving mysteries? Cite specific examples from texts read to justify your response. Edit your writing for varied sentence patterns and consistency in style and tone. Upload your essay to the classroom blog. (W.6.2, W.6.9a,b, W.6.4, W.6.5, W.6.6, L.6.1, L.6.2a,b, L.6.3a,b, SL.6.4)

### **Reading Poetry, Reading Fluency, Performance**

Choose your favorite poem from this unit to memorize and/or recite to the class using appropriate eye contact, adequate volume, and clear pronunciation. Record your presentation using a video camera so you can evaluate your performance. (Alternatively, you can write your own poem based on a poem read in class.) After the reading, ask your classmates to point out figurative language, word relationships, and/or nuances in word meanings. (SL.6.1, L.6.5)

### **Reading Literature, Speaking and Listening**

Since you and your classmates are reading different mysteries, keep track of this information in your journal or mark your book with sticky notes to facilitate class discussions about these points:

- Title and author of your mystery
- Each character's name, his/her traits, and his/her role in the mystery
- List of clues, including page numbers on which they are found
- Make and revise predictions (because mystery stories continually evolve, it is important to make predictions and return to them each time new evidence is found)
- Solution

Your teacher may ask you to write your response in your journal and share it with a partner before class discussion. The class can also create a shared online spreadsheet to facilitate the exchange of information. (RI.6.4, RI.6.5)

### **Speaking and Listening**

Usually there is more than one way to solve a (math) problem. What have you learned about inductive and deductive reasoning? How does hearing your classmates articulate their thinking increase your understanding of problem solving? (SL.6.1, SL.6.4)

### **Art, Speaking and Listening**

Compare the work of Balthus to the illustrations in *The Mysteries of Harris Burdick* by Chris Van Allsburg. What are the differences you notice between fine art (Balthus) and illustrations (Van Allsburg)? How are the looks of these two artists similar? How are they different? Illustrators are sometimes inspired by the work of fine artists. Might this have been the case here? (SL.6.1, SL.6.4)

### **Art, Narrative Writing**

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Study the small details and imagery in Balthus’s *The Street* and *The Mountain*. What is happening in these paintings? Imagine what might have occurred before and after each scene. Write a short story describing what you see, and what might happen next to these characters. (W.6.3, W.6.4, W.6.5)

### Reading Literature, Speaking and Listening

As you discuss how you solve mysteries and math problems, classify your approach as inductive or deductive. When do you use inductive reasoning? When do you use deductive reasoning? Why? Which of the following problem-solving approaches use inductive reasoning and which use deductive reasoning?

- Acting out the scenario
- Role-playing
- Drawing a picture
- Making a list
- Working backwards
- Making educated guesses and checking how they work
- Drawing a web of facts, events, and characters
- What strategies do your characters use (e.g., Reynis, Kate, Sticky, and Constance from *The Mysterious Benedict Society*)?

### Literacy Component: Reading

- RL.6.5: Analyze how a particular sentence, chapter, scene, or stanza fits into the overall structure of a text and contributes to the development of the theme, setting, or plot.
- RI.6.4: Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings.

### Writing

- W.6.2: Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.

### Listening & Speaking

- SL.6.4: Present claims and findings, sequencing ideas logically and using pertinent descriptions, facts, and details to accentuate main ideas or themes; use appropriate eye contact, adequate volume, and clear pronunciation.

### Language

- L.6.5: Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.

### Summarizing Strategy:

GIST

T-chart, “Just the Facts” Graphic Organizer

Mind Map – Character Map – Story Board

Cornell Notes

<http://its.guilford.k12.nc.us/act/strategies/summary.htm>

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| <p><b>Support for Differentiation:</b><br/><b>ELL</b></p> <ul style="list-style-type: none"> <li>• Offer students a graphic organizer to lay out and brainstorm thoughts.</li> <li>• Print class notes and anecdotes and hand to student prior to class - highlight answers to discussion prompts.</li> <li>• Create puzzles or problems to solve that are slightly easier - offer visual clues and guided prompts to assist in solution.</li> <li>• Tic Tac Toe assignments – offer multiple choices to support multiple intelligence learning styles (create a poem puzzle, using construction paper draw a picture from our story, cut into puzzle pieces and have a classmate solve, video your journal response to class question, etc)</li> <li>• Offer vocabulary in English with alternate language equivalent for student – add definitions in both languages.</li> <li>• Assign a peer mentor to act as a scribe, interpreter and “got it!” buddy.</li> </ul> | <p><b>EC</b></p> <ul style="list-style-type: none"> <li>• Offer students a graphic organizer to lay out and brainstorm thoughts.</li> <li>• Print class notes and anecdotes and hand to student prior to class - highlight answers to discussion prompts.</li> <li>• Create puzzles or problems to solve that are slightly easier - offer visual clues and guided prompts to assist in solution.</li> <li>• Tic Tac Toe assignments – offer multiple choices to support multiple intelligence learning styles (create a poem puzzle, using construction paper draw a picture from our story, cut into puzzle pieces and have a classmate solve, video your journal response to class question, etc)</li> <li>• Assign a peer mentor to act as a scribe, interpreter and “got it!” buddy.</li> </ul> | <p><b>AIG</b></p> <ul style="list-style-type: none"> <li>• Have students create own graphic organizer that best suits their individual learning style – self sufficient study skills develop.</li> <li>• Increase difficulty of problems to solve – offer “brain buster” challenges at varying grade levels.</li> <li>• Have students create higher order questions and prompts – use in class and have each student act as “teacher” when responding to their prompt – support them in using guided discussion skills and positive response practice.</li> <li>• Research based activities that require independent time – more student centered class time.</li> </ul> |
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### Sample Formative Assessment (aligned to Learning Target):

Pre/Post tests on Study Island

ClassScape benchmarks and practice assessments.

Diagnostic Reading Assessments

Writing Response –prompted response journals and mini-essays (topic given – response evaluated).